

# PERCEPTION OF SECURITY AND PROTECTIVE STRATEGIES: DIFFERENCES BETWEEN PERSONALITY PROTOTYPES

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## Abstract

The present study investigates the relation between personality traits and perceptions of security as well as the relation between personality traits and protective strategies of university students. For that reason, 295 university students were asked about their general perceptions of security, specific worries, and used or desired protective strategies as well as their personality via questionnaire. With a cluster analysis, three personality types could be identified (resilient, overcontrolled, undercontrolled). Those personality types differ with regard to their perception of security at night, their fear of sexual assaults, and their use of several protective strategies. Hence, personality traits are not only associated with different levels of perception of security but also with the use of protective strategies.

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**Keywords:** Perception of security, protective strategies, personality prototypes

## Introduction

Feelings of insecurity and the fear of crime belong to the everyday life of many people (Kreuter, 2002). A subjective feeling of insecurity impacts many aspects of life. People who perceive high levels of insecurity avoid certain places that seem to be dangerous, develop strategies to defend themselves, or do not trust the security of their own apartment (Mühler, 2011). From a long-term perspective the feeling of insecurity can lead to a lesser quality of life or satisfaction in life (National Crime Council, 2009). Research often shows that the perception of security and the fear of crime do not represent the actual danger or frequency of crimes (Frevel, 1998). For this reason, numerous researchers concentrated on the investigation of factors, which influence people's fear of crime and their perception of security, respectively. Two major factors that are discussed in the literature are external or situational factors (e.g., neighborhood or political issues;

Boers & Kurz, 1997) and internal or personal factors (e.g., personality traits; Klama & Egan, 2011).

The present study focuses on the relation of personality traits and perception of security as well as behavioral strategies to enhance security. So far, different studies already show connections between personality traits and the fear of crime. Klama and Egan (2011) for example could show positive correlations with Neuroticism and Agreeableness as well as negative correlations with Openness. According to these findings a relation between personality and the fear of crime seems to be plausible.

### **Correlates of fear of crime**

According to the correlates of fear of crime, ideas of Gabriel and Greve (2003) concerning conceptual and methodological issues are of high relevance. The authors argued that situational, social, and personal influences can be distinguished. These influences can function as personal prerequisites influencing the fear of crime. A similar line of argumentation was proposed by Schwind, Fetchenhauer, Ahlborn, and Weiß (2001), who describe the phenomenon of fearing crime as a process. The authors argue that people permanently assess the risk that something bad happens to them in a certain period of time or in a certain situation. On this basis they develop a feeling of security or insecurity, which results in certain behavioral strategies. One factor that influences the perception of security or insecurity is gender. In most situations, women report higher levels of insecurity and fear of crime than men (Gilchrist, Bannister, Ditton & Farrell, 1998; Kury, Dörmann, Richter, & Würger, 1992). A further factor influencing the fear of crime is the age of a person. Especially between youth and young adulthood a clear increase in the perception of insecurity can be noticed (Wetzels, Greve, Mecklenburg, Bilsky, & Pfeiffer, 1995).

Models that focus on external or situational factors that influence the fear of crime are summarized by Boers and Kurz (1997). These models include for example victimization experiences of a person, the disorganization of the environment or neighborhood, or media reports and social issues connected to crime.

In the context of the present study personality traits were investigated as correlates of fear of crime and strategies to protect one self. Klama and Egan (2011) were able to show that fear of crime is negatively related to Openness, and positively related to Conscientiousness and Neuroticism. These personality traits are three of the five factors of the Five Factor Model of Personality (McCrae & John, 1992). With respect to the Five Factor Model of Personality Robins, John, Caspi, Moffitt, and Stouthamer-Loeber (1996) proposed that persons can be clustered according to their individual level of Openness, Conscientiousness, Neuroticism, Extraversion, and

Agreeableness into three prototypes of personality. The three prototypes were described as resilient, overcontrolled, and undercontrolled. The resilient cluster is characterized by low Neuroticism and high levels of the other four dimensions. Resilient persons show high levels adaptability and enough self-control to regulate their behavior. Overcontrolled persons are characterized by high values in Neuroticism and low values in Extraversion. They usually show a very disciplined, steady behavior and often have constricted, constant interests and do not show many emotions. Undercontrolled persons can be characterized by low values in Agreeableness and Conscientiousness. In their behavior, undercontrolled persons show a reduced control of their impulses, act spontaneously and unconventional and express their emotions in a very direct way.

In the present study it will be tested if these personality prototypes are related to fear of crime. In addition, it will be investigated whether persons of different personality types differ with regard to used or desired protection strategies. The relation of personality and protection strategies has to our knowledge not yet been investigated. Nonetheless, other researchers have already established a classification distinguishing different forms of strategies. Köhn and Bornewasser (2011) differentiate between strategies of protection (self-defense class, pepper-spray, etc.) and strategies of avoidance (avoidance of certain places, leaving the house at night only with company, etc.).

### **Goals of the present study**

The main focus of the study is the relation of personality prototypes and perception of security and protection strategies. For that reason the personality characteristics of the participants were measured and the participants will be classified according to the personality typology of Robins et al. (1996). Klama and Egan (2011) found positive correlations of fear of crime and Neuroticism and Conscientiousness as well as a negative correlation of fear of crime and Openness. As resilient persons are characterized by low Neuroticism and high Openness and Conscientiousness it was expected that they would show a higher general perception of security and a lower specific fear of crime than overcontrolled and undercontrolled people. Moreover, it was expected that overcontrolled persons would report low levels of perception of security and higher levels of specific fear of crime, whereas the undercontrolled persons were expected to show a medium level of fear of crime and perception of security.

In addition it was expected that the personality types differ in their preferred protective behavior from one another. People with higher levels of fear of crime and higher levels of perception of security should use more protective strategies.

## Method

### Sample

For the present study 295 university students of different major subjects were recruited. The average age of the students was 23.13 ( $SD = 5.59$ ) years and they studied on average in their fifth semester ( $M = 4.89$ ;  $SD = 3.49$ ). In this sample 70.80% of the participants were female.

### Material

**General perception of security.** To reduce external influences of the fear of crime, the university campus was used as a context that all students share. The general perception of security of the students was thus measured with two items, which read as followed: “How safe do you feel on the university campus and its surrounding alone by day?” and “How safe do you feel on the university campus and its surrounding alone by night?”. The answers were rated on a four-point-scale from 1 (*very insecure*) to 4 (*very secure*).

**Fear of crime.** The fear of crime was measured with 8 items. In this case the topics physical attack (being attacked and getting hurt, being threatened with a weapon), psychological attack (verbal abuse, being forced to a certain act), sexual violations (sexual harassment, rape) and property crimes (theft, vandalism) were interviewed with two items. For example one item reads: “How much do you worry about getting attacked and hurt by a person on campus?” The answers were rated on a four-point Likert scale from 1 (*not at all*) to 4 (*very much*).

**Protective strategies.** Participants were asked about 10 potential strategies, which could increase the perception of security. This included carrying a weapon or pepper-spray, avoidance of the campus at night, avoiding groups of people, purchasing a dog, taking a self-defense class, avoidance of certain places, requests for monitoring cameras and desire for a security service. Items were for example: “I got a dog for my own protection.” or “I would feel safer if monitoring cameras were installed.” Students could rate these items on a four-point scale from 1 (*not true at all*) to 4 (*very true*).

**Personality.** To measure the Big Five personality dimensions, the BFI-K (Rammstedt & John, 2005) was used. The participants were confronted with statements concerning their personality, which can be rated on a five-point Likert scale from 1 (*not true at all*) to 5 (*very true*). The internal consistencies were  $\alpha = .78$  for Extraversion,  $\alpha = .74$  for Neuroticism,  $\alpha = .60$  for Agreeableness,  $\alpha = .72$  for Conscientiousness, and  $\alpha = .76$  for Openness.

## Results

### Personality types and their preference for protective strategies

To examine the dimension of security perception and of protective actions from a person-centered point of view, a cluster analysis was conducted to distinguish the different personality types. The three personality types described by Robins et al. (1996) were identified in the clusters (Figure 1). People in cluster 1, in the following named “resilients”, are characterized by low values in Neuroticism and high values in Extraversion ( $N = 158$ ). Cluster 2 includes persons with high Neuroticism and low Extraversion, in combination with a high Agreeableness and Conscientiousness ( $N = 66$ ). In the following these persons are called “overcontrolled”. Cluster 3 summarized undercontrolled people, who have low measures of extraversion, openness, agreeableness and conscientiousness ( $N = 71$ ). According to these findings the predominant part of this sample can be classified as resilient.

The next step showed in what extent the different groups differ according to their perception of security and their favored or used protective strategies. All means and standard deviations for the overall sample as well as the three clusters can be found in Table 1.

Significant differences could be found with respect to the general perception of security at night,  $F(2, 290) = 3.03$ ,  $p = .05$ ,  $\eta^2 = .02$ . Post-hoc-comparisons showed that this could be traced back to differences between overcontrolled and resilient. Resilients showed a higher security perception. In general, the security perception at night was lower than the security perception at day. This was true for the overall sample,  $t(302) = 21.88$ ,  $p < .01$ , as well as for all three clusters (all  $ps < .01$ ).

Concerning the fear of crime group differences were only found with regard to the fear of sexual harassment ( $F(2, 191) = 3.13$ ,  $p < .05$ ,  $\eta^2 = .02$ ). This can be explained by a significantly higher fear of the undercontrolled group in comparison to the resilient group.

The analysis of the protective strategies showed significant differences between the personality types regarding the avoidance of the campus at night ( $F(2, 290) = 3.68$ ,  $p = .03$ ,  $\eta^2 = .03$ ) and the purchase of a dog ( $F(2, 290) = 3.05$ ,  $p < .05$ ,  $\eta^2 = .02$ ). In both cases the undercontrolled showed a higher application of the strategy than the resilient. Marginal significant effects could be shown for the use of pepper-spray ( $F(2, 292) = 2.56$ ,  $p = .08$ ,  $\eta^2 = .02$ ), taking part in a self-defense class ( $F(2, 291) = 2.83$ ,  $p = .06$ ,  $\eta^2 = .02$ ) and the request for a security service ( $F(2, 291) = 2.97$ ,  $p = .05$ ,  $\eta^2 = .02$ ).

## Conclusion

The present study analyzed how people with different personality characteristics differ in their perception of security and their protective

behavior. For this purpose students were asked to fill in questionnaires about their security perception.

Altogether it could be shown that the students mainly feel secure. It could be demonstrated that the security perception of the students was lower by darkness than it was by day.

Considering the specific fears of crime, the three personality prototypes showed a comparable order regarding the level of worries. Worries about personal belongings (theft or the damage of property) were uttered most often. This was followed by the fear of becoming a victim of psychological violence (insult, constraint). The fear of sexual harassment was ranked third and the lowest fear was reported concerning a physical attack on campus. The three personality types did not differ in their absolute level of specific worries, except for the fear of a sexual attack, that was feared more by undercontrolled participants than by resilient. Overall it can be said that students generally report relatively low levels of fear of crime. These results are consistent with the findings of Köhn and Bornewasser (2012). The authors could also demonstrate differences between security perception for day and night time.

Regarding the protective strategies, it is noticeable that students clearly prefer strategies which represent a kind of passive protection (cameras and a security service, joining other students) instead of an active defense (weapons, pepper-spray, a dog, self-defense). This pattern can be found in all three personality prototypes.

With regard to the three personality types it became apparent that the formed clusters differed not only in their perception of security at night, but also in some of their preferred protective actions. With respect to owning pepper-spray, avoiding the campus, and perceiving a need for cameras, the resilient students showed lower values than undercontrolled students. This result reflects their ability to easily adapt to external conditions. Concerning the general security perception at night the overcontrolled group had a clearly lower value. Higher values were found for resilient with regard to attending a self-defense class compared to undercontrolled persons. This can be interpreted as an adaptive and useful strategy to cope with worries and perceptions of insecurity. Taken together it can be highlighted that there were only a few differences between the personality prototypes. Differences were mainly found between resilient and undercontrolled students. Overcontrolled students mostly did not differ from the other two clusters.

When interpreting the results it has to be considered that a sample of students might be more homogeneous in some characteristics than a sample drawn from the general population. This could lead to less variance in these items. Less variance makes it harder to find significant differences between the groups. Therefore it can be argued that there might be some more

differences that were not detectable in the present study. Future research should therefore reinvestigate this issue.

According to the presented results it can be assumed that personality traits are not only linked to the security perception of people, but that they can also be linked to the favored protective strategies. These findings are consistent with the model proposed by Wetzels et al. (1995), which postulates that fear of crime is not only influenced by social resources, information and experiences, but also by personal factors like personality dispositions. According to Wetzels et al. (1995) the fear of crime affects individual forms of reaction like avoidance, retreat and security measures.

On an individual level these findings can be helpful for student counseling. It is necessary to learn about coping strategies of people and to work with them. The aim should be to replace less adaptive strategies like wearing a weapon or avoiding the campus when its dark with more adaptive strategies like for example taking part in a self-defense class to increase the security perception of the students.

For further research it would be of great interest to analyze in a longitudinal design how specific strategies on an individual level as well as on an institutional level can change the perception of security. From this it could be derived which strategies are actually reasonable to increase the security perception of students.

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Table 1 *Descriptive statistics*

	<i>Overall M (SD)</i>	<i>Resilients M (SD)</i>	<i>Over- controlled M (SD)</i>	<i>Under- controlled M (SD)</i>
<i>Perception of Security</i>				
day	3.73 (0.52)	3.75 (0.49)	3.74 (0.48)	3.69 (0.60)
night	2.78 (0.76)	2.89 (0.75) <sup>a</sup>	2.65 (0.69) <sup>a</sup>	2.69 (0.82)
<i>Specific Worries</i>				
physical attack	1.42 (0.49)	1.39 (0.47)	1.40 (0.47)	1.51 (0.54)
sexual attack	1.48 (0.56)	1.41 (0.50) <sup>a</sup>	1.48 (0.56)	1.61 (0.67) <sup>a</sup>
verb./psych. Attack	1.72 (0.60)	1.83 (0.56)	1.63 (0.52)	1.72 (0.60)
Belongings	2.30 (0.64)	2.32 (0.63)	2.23 (0.65)	2.31 (0.68)
<i>Protective Strategies</i>				
Dog	1.07 (0.35)	1.06 (0.31) <sup>a</sup>	1.02 (0.12) <sup>b</sup>	1.15 (0.53) <sup>ab</sup>
Weapon	1.08 (0.41)	1.06 (0.33)	1.11 (0.53)	1.11 (0.46)
pepper-spray	1.22 (0.65)	1.16 (0.51) <sup>a</sup>	1.23 (0.70)	1.37 (0.83) <sup>a</sup>
avoidance of groups	1.41 (0.62)	1.42 (0.59)	1.35 (0.54)	1.46 (0.75)
avoidance campus	1.58 (0.78)	1.49 (0.70) <sup>a</sup>	1.55 (0.75)	1.79 (0.92) <sup>a</sup>
self-defense class	1.62 (1.07)	1.75 (1.12) <sup>a</sup>	1.55 (1.02)	1.39 (0.89) <sup>a</sup>
avoidance of places	1.76 (0.87)	1.73 (0.89)	1.71 (0.81)	1.85 (0.91)
Cameras	1.99 (0.92)	1.88 (0.89) <sup>a</sup>	2.02 (0.96)	2.20 (0.94) <sup>a</sup>
security service	2.29 (0.98)	2.22 (0.97)	2.37 (1.01)	2.35 (0.97)
joining others	2.34 (0.95)	2.27 (0.92)	2.45 (0.99)	2.38 (0.99)

Note. Same index indicates significant difference ( $p < .05$ ).

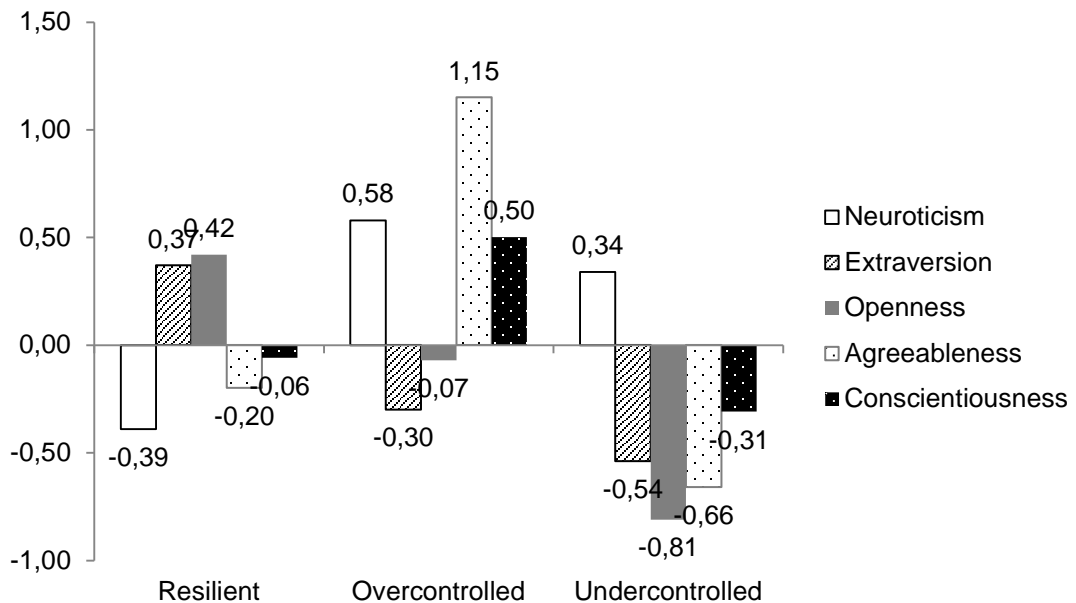


Figure 1. Personality types according to cluster analysis (z-standardized means)